

REMARKS

Claim 1 has been amended to more precisely describe the inventive subject matter for which protection is sought. Prior claim 1 was rejected as anticipated by WO 84/02881 (Berbeco).

The indication of allowance with regard to claims 4-8 is noted with appreciation. It is respectfully submitted, however, that broader protection for the inventive contribution of the inventors is justified and appropriate.

Thus, claim 1 now recites that the floor panel, in addition to a substrate and a backing layer beneath the substrate, includes a wear resistant surface layer filled with wear resistant additives as a top layer and a decorative covering layer below the wear resistant surface layer. Notably, the wear resistant layer, the decorative covering layer, the substrate and backing layers are consolidated by pressure and form a plate-shape direct pressure laminate (DPL). Also notably, the antistatic agent is uniformly dissolved and evenly distributed in the synthetic material of at least one of the wear resistant surface layer and the decorative covering layer.

Support for the amendments to claim 1 may be found in the specification as follows:

With regard to the wear resistant surface layer filled with wear resistant additives as a top layer and a decorative covering layer including a sheet of paper printed with a decorative pattern below the wear resistant layer: page 10: 13-24; page 8: 23-26; page 9: 14-20.

With regard to the wear resistant surface layer and decorative covering layer including synthetic material and extending over substantially the whole surface of the panel, see the passages in the specification discussed in the previous paragraph.

With regard to the wear resistant surface layer, decorative covering layer, substrate and backing layer formed as a plate-shaped direct pressure laminate: page 9: 34; page 11: 1-12.

With regard to the antistatic agent uniformly dissolved and evenly distributed in the synthetic material of at least one of the wear resistant surface layer and decorative covering layer: page 5: 5-17; page 7: 25-28.

As the examiner is undoubtedly aware, a DPL laminate is distinguished from a high pressure laminate (HPL) in that an HPL is formed by first separately forming bottom and top layers under heat and pressure into a laminate structure and then fusing them to a core structure under relatively high pressure, whereas a DPL involves assembling all of the layers together, including resin impregnated decorative, top and bottom layers and fusing them to the core in one step at pressures generally lower than HPL pressures.

Also, as the examiner is undoubtedly aware, HPLs cost more to produce than DPLs. This information is readily available to the examiner via the internet using the keywords "high pressure laminate" and "direct pressure laminate".

It is clear that Berbeco is an HPL involving several procedural steps to manufacture the product wherein the top sheet that is pre-formed contains a top conductive layer.

It is respectfully submitted that claim 1 is fully patentably distinguishable over Berbeco in that it recites, in the first place, a plate-shaped direct pressure laminate (DPL) constituted of the wear resistant surface layer, the decorative covering layer, the substrate and the backing layer, wherein the antistatic agent is uniformly dissolved and evenly distributed in the synthetic material of at least one of the wear resistant surface layer and the decorative covering layer. Claim 1 further recites that the wear resistant surface layer is filled with wear resistant additives and is located above a decorative covering layer that includes a sheet of paper printed with a decorative pattern.

The product of claim 1 avoids the use of many resin impregnated paper sheets in a top layer of a flooring panel where there is a high risk that the antistatic agent in the top sheet can migrate into the underlying sheets. The invention of claim 1 provides a more reliable and less expensive way of providing a longer lasting electrically dissipative effect on a layered wear resistant floor panel with little or no effect on the visibility of the decorative pattern. Because of the presence of less carrier layers, less resin in the application of the DPL process, the product according to claim 1 is less expensive to manufacture and migration of the antistatic agent is minimized.

Less antistatic agent is required to get the desired antistatic behavior due to the

fewer layers involved in the product and dissolving the antistatic agent in the synthetic materials of either the wear resistant surface layer or the decorative covering layer further enhances the long term antistatic property of the product.

The wear resistant surface layer recited in claim 1 being filled with wear resistant additives is provided on top of a decorative covering layer. In practice, these wear resistant additives may have an effect on the visibility of the printed pattern even before the antistatic agent is incorporated in the layer. However, by uniformly dissolving and distributing the synthetic material in at least one of the wear resistant surface layer and decorative covering layer, the impact on the visibility of the printed pattern stays within acceptable boundaries.

Accordingly, it is respectfully submitted that amended claim 1 is fully distinguishable over the cited prior art and that allowance of this claim is appropriate.

Claims 2-28 all refer back directly or indirectly to claim 1 and are patentable for the same reasons given above in the discussion of the patentability of claim 1. Moreover, each claim recites individual structural elements that further provide a basis for patentability of each claim.

With regard to amended claim 2, the basis for the amendment can be found in the specification at page 5: 24+.

With regard to amended claim 14, the basis can be found at page 3: 25-30.

With regard to claim 15, the basis for the amendment may be found at page 7: 22.

With regard to claim 16, the basis may be found at page 7, line 22.

With regard to the amendment to claim 17, the basis may be found at: page 2, last paragraph; page 8, first paragraph.

With regard to amended claim 19, the basis may be found at page 7: 30.

Regarding amended claim 20, the basis may be found on page 5: 1-3; page 13: 1-24.

Regarding amended claim 24, the basis may be found at page 8: 28+; page 10: 18+.

With regard to amended claim 25, the basis may be found at page 10: 29.

With regard to amended claim 29, basis is found at page 5: 5-17; page 11: 1-12; page 12: 12-34.

The title of the invention in all of the apparatus claims 1-28 has been changed from "Panel" to "Layered floor panel" to provide a better descriptive title of the subject matter recited in the claims. In some instances, the title is changed from "Panel" to "Layered floor panel" to make the claim consistent with a prior claim to which the claim refers. Changing the title of the invention in the claims is not intended to constitute a change in the scope of any of the claims in which this amendment appears.

The amendments to the specification do not introduce new matter but rather are intended to provide more concise mathematical expressions and to provide corresponding U.S. patent numbers where the original specification provides foreign patent numbers. Wherever applicable, the specification is also amended to reflect that certain patent documents identified therein are assigned to the owner of this application.

New Claims

New claims 35-40 are introduced to provide additional protection for the inventive subject matter disclosed in this application.

Regarding new claim 35, support for this claim is found at page 9: 21-28.

Regarding new claim 36, support is provided at page 9: 1-8.

Regarding new claims 37 and 38, support is provided at page 8: 8-21.

Regarding claim 39, support is found at page 8, lines 8-21.

Regarding claim 40, support is found at page 7: 25-28.

It is respectfully submitted that each of claims 35-38, which depend from claim 1, is patentable both for the reasons expressed previously in connection with the patentability of claim 1 as well as the individual recited structural elements in each claim.

With regard to the profiles at the edges of the floor panels recited in claims 35 and 39, the examiner's attention is invited to the language on page 9, lines 23-28 and in particular with regard to the citation of U.S. 6,006,486 which shows such edge

profiles in floor panels used to make floating laminated floors. It is respectfully submitted that a person skilled in the art will recognize and understand the disclosure as well as the subject matter claimed in claims 35 and 39.

In view of the amendments and comments presented herein, it is respectfully submitted that the application is now in condition for allowance and its passage to issue is respectfully requested.

Respectfully submitted,
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